

**REMARKS**

Claims 1-16 and 18-27 are pending in this application, claims 8-13 having been withdrawn from consideration. By this Amendment, claims 1, 14, 18 and 21 are amended. Support for these amendments can be found in the specification, for example, at page 8, lines 9-15, page 15, lines 18-21, and in claims 1, 14, 18 and 21 as originally filed.

Also by this Amendment, new claims 22-27 are added. Support for new claims 22-27 can be found in the specification as originally filed, for example, at page 3, line 12 - page 4, line 17, page 7, and in claims 2-7 as originally filed.

Entry of the amendments is proper under 37 CFR §1.116 since the amendments: (a) place the application in condition for allowance for the reasons discussed herein; (b) do not raise any new issue requiring further search and/or consideration since the amendments amplify issues previously discussed throughout prosecution; and (c) place the application in better form for appeal, should an appeal be necessary. The amendments are necessary and were not earlier presented because they are made in response to arguments raised in the final rejection. Entry of the amendments is thus respectfully requested.

Applicants appreciate the courtesies shown to Applicants' representative by Examiner Marschel in the September 9 personal interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

**I. New Matter**

The Office Action rejects claims 1-7, 14-16 and 18-21 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. In particular, the Office Action asserts that the claim amendments set forth in the December 29, 2003 Amendment incorporate new matter in their recitations of "an arbitrary portion of a biopolymer" and "generic providing or contacting" limitations. The Office Action further asserts that an AFM is required for the practice of the claimed methods but is not

incorporated in the claims. Applicants respectfully traverse these rejections, and submit that claims 1-7, 14-16 and 18-21 set forth subject matter that is fully described in the original specification as originally filed.

As an initial matter, claims 1, 14, 18 and 21 have been amended to replace the term "providing" has been replaced by the term "operating," which is supported by the original specification, at least at page 15, lines 18-21. Applicants submit the "contacting" limitations are supported by the specification, at least at page 8, lines 9-15. Thus, Applicants respectfully submit that the generic "operating" and "contacting" steps are fully supported by the specification as originally filed.

Applicants further submit that "operating a carbon nanotube as an electrode an arbitrary portion of a biopolymer; and contacting the electrode with the biopolymer at the arbitrary portion" are supported at least by the disclosures of the original specification. See Specification, page 15, lines 1-21. In particular, the specification sets forth that an "example of a method of operating the carbon nanotubes and thereby connecting them to an arbitrary portion of the sample molecule [a biopolymer] is a method in which an atomic force microscope (... AFM) is used." See Specification, page 15, lines 18-21. Thus, Applicants respectfully submit that this clearly discloses "operating a carbon nanotube as an electrode an arbitrary portion of a biopolymer; and contacting the electrode with the biopolymer at the arbitrary portion," as set forth in claims 1, 14, 18 and 21.

In addition, Applicants respectfully submit that AFM is merely an example of a method that may be used in accordance with the methods of claims 1, 14, 18 and 21. See Specification, page 15, lines 18-21. The language of the specification, which states that an "example of a method of operating the carbon nanotubes and thereby connecting them to an arbitrary portion of the sample molecule [a biopolymer] is a method in which an atomic force microscope (... AFM) is used," clearly indicates that AFM is merely an illustrative example

of a device that may be used in accordance with the methods of claims 1, 14, 18 and 21.

Thus, Applicants respectfully submit that AFM is not required or necessary to the practice of the methods of claims 1, 14, 18 and 21, nor was the exemplary description of AFM intended to be limiting.

Thus, Applicants respectfully submit that claims 1-7, 14-16 and 18-27 fully comply with the written description requirement. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

## **II. New Claims 22-27**

New Claims 22-27 are added by this amendment. Claim 22-27 set forth subject matter previously claimed in original claims 2-7.

Applicants respectfully submit that claims 22-27 are patentable over the references of record, at least because none of the references of record teach or suggest applying an electric current between an electrode and a biopolymer as set forth in claim 22 and its dependent claims 23-27. That is, Applicants unexpectedly discovered that the application of an electric current between an electrode and a biopolymer provides a more stable contact state than simply contacting an electrode with a biopolymer, which was not disclosed in any of the references of record.

For at least these reasons, Applicants respectfully submit that claims 22-27 are in condition for allowance.

## **III. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-16 and 18-27 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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